

HARDIE (T. M.)

Two Cases of Nasal Hydror- rhœa.

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With a Report on the Eye Symptoms,

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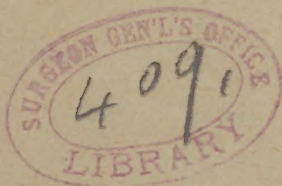
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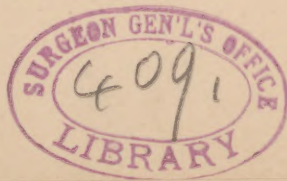
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WITH A REPORT ON THE EYE SYMPTOMS,

BY CASEY A. WOOD, M. D., C. M.,
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CASE I.—Mary S., aged forty-three, German, married, has one child, aged fourteen, healthy. Until nine years ago, when she came to America, she had always enjoyed good health. After living for two weeks in a basement, in February, 1881, she developed a cough, which became asthmatic some time between March and July. She had had occasional attacks of asthma ever since, particularly in cold, damp weather. In July she received what her medical attendant told her was a sunstroke, which confined her to bed for some time. Some pills prescribed caused a buzzing in the ears with deafness for several days (quinine?), and during the severe headaches, usually vertical, from which she has suffered at intervals since that time the deafness occasionally recurs. In August or September, 1881, a watery discharge from the nose commenced, the conjunctiva being reddened and lacrymation profuse at the same time. The discharge lasted for three or four days, stopped for a month, came on again for a few days, and again intermitted. Similar periods of discharge and absence of discharge alternated continuously until about two years and a half ago, since which time the discharge has

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occurred daily, usually for three or four hours in the morning. The patient reports that it begins just as soon as she rises in the morning, whether that be at 4.30 or 6.30. Excepting on one or two occasions, no discharge has been noticed at night. She can not remember whether the discharge occurred on days on which she was confined to bed. Has never attempted to stop the discharge by lying down in the morning after the commencement of the flow. As a usual thing the fluid comes from both nostrils (sometimes from one), and drop by drop. Shortly before stopping for the day the clear water, whitish and opalescent when in quantity, becomes thicker and viscid, resembling ordinary mucus. Sneezing and formication are somewhat frequent accompaniments of the discharge, but they are by no means constant, nor does the formication appear to precede the discharge, as one might expect. It quite as frequently follows. The patient avers that this symptom has been more annoying since treatment was begun. While the asthma is ordinarily troublesome only in cold and damp weather, she is not sure that the hydrorrhœa is appreciably influenced by matters meteorological. Has not noticed that it is worse on damp days. Thinks it is as bad in July as in November. It varies in amount from time to time, but without reason, so far as the patient could determine.

History since coming under Observation.—In October, 1889, "could not see to sew," and attended Dr. Coleman's eye clinic, where glasses were prescribed. She was then referred to me. Examination of her nose showed slight posterior hypertrophy of the right inferior turbinated and a dropsical condition of the middle turbinated bodies right and left. Ridge on septum high up on left side. No polypi. Sense of smell unimpaired. No marked departure from normal sensibility of nasal mucous membrane as tested by probe. Satisfactory posterior rhinoscopic view not obtainable, tongue depressor causing gagging. Patient says this is produced by holding anything (*e. g.*, candy) in the mouth for a minute even, but she has no such sensation when masticating and eating ordinary food.

General health not very good. Burning pain in epigastrium after eating not infrequent. Painful and hyperæsthetic spot

over the left eighth rib in front, which first became painful five years ago. No neuralgias. Is being treated in gynæcological clinic for laceration of the cervix. The patient has been treated during the past ten years by a sufficient number of regular practitioners and quacks, but without marked benefit. The removal by snare of portions of the middle turbinated bodies, with the internal administration of zinc oxide (gr. $\frac{1}{2}$) and belladonna extract (gr. $\frac{1}{4}$), markedly diminished the flow for a time. Treatment was begun on the 10th of April, with good results until the 6th of May, when a day and night discharge commenced. This lasted until the 9th of May, the patient getting but little sleep in the interval. The nasal discharge was accompanied by a flow from the eyes and a severe headache. On the 10th and 11th of May she had asthma; there was no discharge or headache. She was then almost free from any unpleasant symptoms until the 3d of June, since which time she has had an almost daily recurrence of the discharge until the present time (7th of July), with asthma and headache from time to time. Patient's attendance has been very irregular since the beginning of June.

In view of the not infrequent association of optic-nerve atrophy with nasal hydrorrhœa (seven cases are recorded), a careful examination of the eyes was made at my request by Dr. Casey Wood, whose report is appended.

The fluid had a specific gravity of 1.006, contained chlorides, traces of mucin, a few cells from the olfactory region, and an occasional flat epithelial cell. It was feebly alkaline in reaction.

CASE II.—I am indebted to Dr. Lackner for the discovery of the case whose history I shall now give.

Mrs. K. K., German, aged forty-two, married, two children, gave a history of profuse watery discharge from the nose which has lasted for ten years. Six months before the discharge began the patient suffered from "malaria" when living in a basement tenement. The flow was at the beginning not very profuse, but in a short time was troublesome throughout the

day and frequently all night as well. She was often wakened by it, and it was occasionally so profuse as to prevent sleep altogether. The intermissions have been rare and of short duration. Patient asserts that the dropping has never ceased for twenty-four hours during the ten years, the amount of the discharge being about the same summer and winter. Upper lip swollen and excoriated. Watery discharge from eyes with occasional conjunctival injection. Fundus normal, no optic-nerve atrophy, and no contraction of visual fields. Dr. Wood kindly made the examination of the eyes in this case also. A troublesome and prominent symptom was sneezing, "forty or fifty times a day" being the usual thing. Unfortunately, the fluid was not examined, the discharge ceasing before the patient followed instructions in the matter of collecting it. The patient does not know the amount of the daily discharge, as she never collected it, but the constant dropping interfered very much with her work. Examination of the nose showed polypi right and left, and polypoid thickening of both middle turbinated bodies.

Treatment was begun February 25th. Polypi removed.

March 8th.—Marked lessening of discharge reported. Remaining polypi removed.

12th.—Discharge very slight. No sneezing.

May 6th.—The same. Hypertrophy of right middle turbinated snared.

17th.—No discharge. No sneezing. Snaring left middle turbinated. Patient reported absence of nasal symptoms on May 22d, June 5th, 12th, and 19th. To report again in one month.

The chief interest in the discussion of hydrorrhœa centers in its ætiology and in the fact of the occasional presence of marked eye complications. The literature of the subject is by no means extensive; about twenty-five cases are reported, and, as in a number of instances for some reason or other an examination of the nose was not made, it is perhaps hardly possible as yet to formulate a theory applicable to all cases. In fact, a perusal of the histories

of cases in which a continuous discharge of water from the nose was a symptom will compel one to conclude that it may, like atrophy of the optic nerve, be produced by a great many different conditions. One was evidently due to fracture of the base of the skull (Vieusse's case *); it is an occasional accompaniment of general anasarca (Rees †); of meningitis (Paget ‡); of trifacial paralysis (Althaus #); of hydrocephalus internus (Leber, || who thought there had been bone absorption from pressure with escape of the cerebro-spinal fluid from the opening thus formed); while in some cases (Priestley Smith's, ^ Nettle'ship's ◇) the brain symptoms appear to have been very marked. In two cases, on the other hand, reported by Bosworth, ‡ to whose valuable paper on the subject I have to acknowledge my indebtedness, there was at the beginning apparently no visible nasal or other disease, and, presuming the examinations to have been accurate, the affection can not very well have been anything but a paresis of the sympathetic vaso-motor nerves, as Bosworth concludes. A somewhat novel idea as to the ætiology of this affection has been suggested by Mules, † who reports three cases in support of his theory that "the dropping is due to overdistended lymph vessels of the pituitary membrane, which by their bursting cause fistulous openings." Briefly they were: 1. A girl who suffered from a discharge of fluid from the umbilicus for six months; no

* *Gaz. hebdomadaire*, 1879, No. 19, p. 298.

† *London Med. and Surg. Journal*, 1834, vol. iv, p. 823.

‡ *Transactions of the Clinical Society of London*, 1879, p. 43.

British Medical Journal, 1878, vol. ii, p. 831.

|| *Graefes Archiv*, vol. xxix, i, 273.

^ *Ophthalmic Review*, London, vol. ii, p. 4.

◇ *Ibid.*, p. 1.

‡ *Treatise on Diseases of the Nose and Throat*, New York, 1889, vol. i, pp. 261, 262.

† *Transactions of the Ophthalmic Congress*, Heidelberg, 1888.

fistula, this discharge being followed by a similar flow for four weeks from under right upper eyelid at frequent, though irregular, intervals during day and night. Stimulation of the lacrymal gland produced no effect. 2. A boy who had congenital lympho-angioma of conjunctiva. 3. A woman in whom a lympho-angioma just inside sphincter ani caused diarrhœa, which alternated with watery discharge from fistulous openings in tumor. In six weeks after ligation of the tumor an apoplectoid attack occurred which caused permanent paresis of one side.

We have not far to look to see Mules's explanation of the discharge from eye and nose, but are as far as ever from knowing the cause of the enlarged lymph tubes. As a corollary to his theory, Mules concludes that the coexistence of optic-nerve atrophy with an abnormal watery secretion from eye and nose is merely a coincidence. He explains the occurrence of the atrophy by suggesting that it may sometimes be due to the wasting character of the general disease, of which it and hydrorrhœa happen to be symptoms. In some cases of hydrorrhœa there is no atrophy, just as in other cases of atrophy there is no hydrorrhœa. Before, however, any conclusion can be arrived at respecting Mules's theory, more exact knowledge with regard to the distribution of the nasal lymphatic system is required. In my opinion the affection is, with few exceptions, immediately dependent upon a vaso-motor paresis, however that may be brought about. For this Bosworth has made out a good case. With some of his conclusions, however, it is difficult to coincide. I fail to see, for example, why the general resemblance of nasal hydrorrhœa in many particulars to hay fever should lead us to assert an atmospheric factor in its causation. In my first case the appearance of the interior of the nose would have been consistent with the hypothesis that there was a distention of the mucous

membrane by lymph, or that we had to do with a lymph-angioma. The fluid could be seen to ooze from the mucous membrane of the upper part of the septum, and from the swollen opalescent middle turbinated body opposite. The discharge did not come from a polypus, so far, at any rate, as concerned that oozing from the septum; nor was the opalescent polypoid-looking middle turbinated a polypus. It became much smaller upon use of cocaine and pressure with a probe. The theory that the discharge is invariably connected with polypi has been several times shown to be incorrect. Cerebral symptoms likewise are frequently absent, as in Case II.

An interesting occasional accompaniment is asthma, as in Case I. So far as I have seen, it has not been noted as a complication of other cases of nasal hydrorrhœa, but the frequency of its association with hay fever, and the general resemblance between the latter and such apparently uncomplicated cases of nasal hydrorrhœa as the two reported by Bosworth, would at any rate prevent our surprise at such a complication. It will be noticed that the patient reports that the asthma had troubled her chiefly during the winter months, and that its onset did not, so far as she had noticed, affect the nasal discharge. My notes of the case since it came under my observation do not exactly corroborate the patient's statement; for instance, during the latter half of April the discharge was very slight and asthma absent, although headache was, perhaps, worse than usual during a part of the time, but on May 6th (when the discharge had been absent for ten days) began one of the worst of her attacks, which was accompanied by headache. This gave way on the 10th and 11th of May to asthma then, on the 12th to the 15th of May, a very slight discharge occurred in the mornings, followed again on the 16th by slight asthmatic attacks. After that, as reported before,

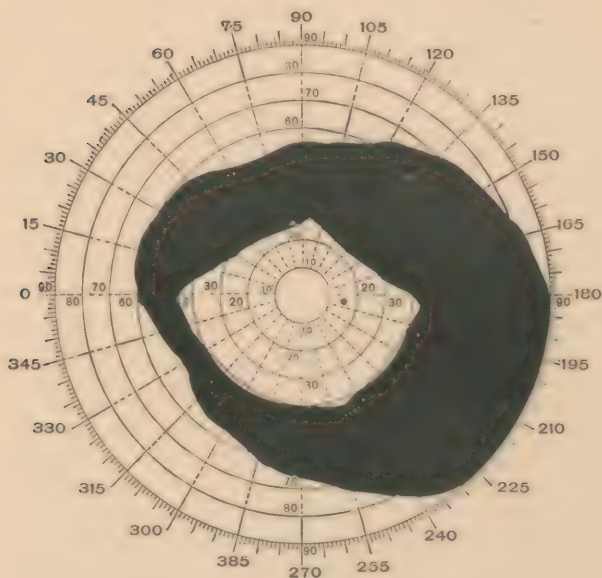
there was absence of both unpleasant symptoms until the 3d of June. There was then apparently an alternation between the attacks of hydrorrhœa and of asthma, but as this does not correspond exactly with the patient's recollection of the previous course of the disease, and as the number of the observations is so small, I shall merely record the fact without further comment. I may say that I have in the present history neglected to discuss the relation which the so-called neurotic temperament bears to the disease. One reason for my omission may be found in the following facts: (1) Case I was that of an individual who would nowadays be denominated neurotic; (2) Case II would not in my opinion be so named. The deduction is obvious.

While the presence of asthma was perhaps the most noteworthy feature of the first case, the second is worthy of record for a different reason. In it we had the two facts (1) that polypi were present along with the discharge, which is by no means unusual; and (2) that treatment directed to the removal of these polypi, and of those portions of the middle turbinated in which there was polypoid degeneration, was efficient in stopping the discharge, and that, too, in cold and wet weather—a very unusual termination to a long-standing case of nasal hydrorrhœa.

I think we may conclude, from a careful reading of the cases recorded, that nasal hydrorrhœa is not a disease *per se*, but a symptom of many pathological lesions, and that the prognosis and treatment of each case must be determined by conditions aside in the majority of instances from the mere fact that there is a flow of water from the nose.

M. S. has complained of weakness of sight, chiefly during the past eight months. Last November glasses were prescribed for her, which, however, she did not think enabled her

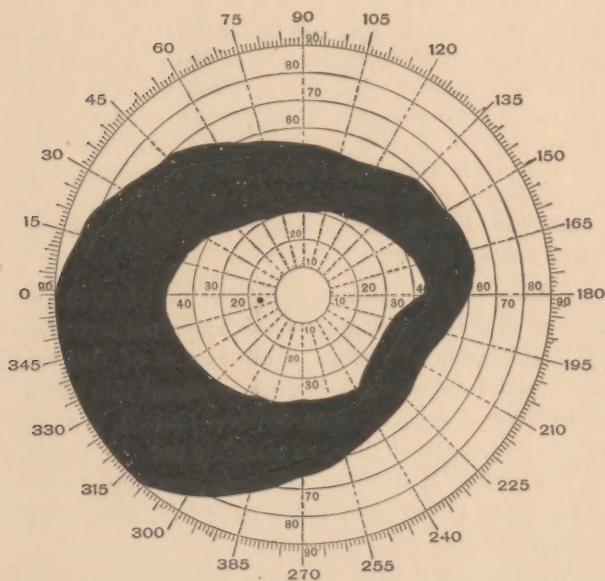
to see any better. She suffers from bilateral epiphora, which is usually, though not always, worse in the morning. It then amounts to a continual flow from both eyes of a fluid resembling tears, and, generally speaking, is worse when the discharge from the nose is worse. During the daytime, also, when the nasal flow is lessened or stops altogether, there is very little lachrymation. The flow of tears has never produced excoriation of the lids. In November last V. R. = $\frac{15}{200}$; V. L. = $\frac{15}{40}$. She was then wearing R. + 3 D., and L. + 1.75 D., which on trial were found not to improve the visual acuity. Both adduction and abduction were weak, the former showing at one trial a strength of 4° , at another 8° . The interni muscles could overcome a prism of 19° – 23° only. At that time she complained of photophobia, and of dark spots in front of her eyes—in front of the right eye especially—and she thinks that for a time at least she was so blind that she could barely discern large objects. Then, for a while, her vision improved, but it has never since been normal, nor is it possible by correcting her refractive error (compound hyperopic astigmatism) to greatly improve the visual acuity. The conjunctivæ, both ocular and palpebral, are injected, but there is no purulent or muco-purulent secretion from the lids, and they do not adhere in the mornings. The last examination made shows a marked improvement (in the right eye particularly), as V. R. = $\frac{20}{40}$, and V. L. = $\frac{30}{40}$, both with correction. The *puncta lacrimalia* are patent and in normal position. There is no affection of either lacrymal sac, and no indication of obstruction of the nasal duct. The ocular excursions are of normal extent on both sides and in all directions. Pupils are both active to light and accommodation. Tension normal in both eyes. The patient does not now complain of scotomata, only of weakness of vision and of inability to read or to do near work with comfort. These, and the other ocular symptoms, have not to any appreciable degree been relieved by atropine or by a full correction of her refractive error. A further examination of the case reveals the fact that she is not color-blind, and that she has no color scotomata. Both fields of vision for white, taken by means of a McHardy perimeter with a 5 mm. square object,



RIGHT EYE.

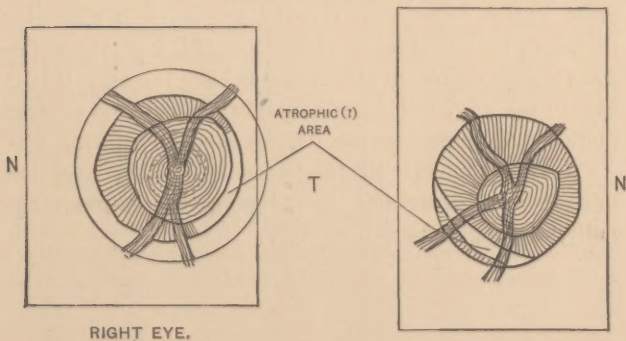
are shown in the charts. These charts were carefully worked out several times, and the contractions were found to be fairly regular and symmetrical. This regularity is especially seen in the left eye, as the right field is more restricted toward the nasal side than was found to be the case in the left eye. The field for red is correspondingly limited in both eyes.

The fundus appearances are interesting, although there is nothing abnormal outside of the papillæ. The *right disc* is deeply and centrally excavated, and the blood-vessels come forward in a normal manner, but the whole papilla is very slightly paler than it should be. On the nasal border of the nerve there is a narrow, yellowish-white band, forming in that situation the rim of the physiological cup, and occupying about one third of its circumference. A somewhat similar appearance is to be



LEFT EYE.

DIAGRAMS OF OPTIC DISCS.



RIGHT EYE.

LEFT EYE.

seen in the *left disc*. Here there is no general pallor, and the normal cupping is shallow. At its bottom, however, the stippling of the cribriform fascia is to be seen. A band, yellowish-white in appearance, longer than but quite as narrow as that visible in the right disc, occupies the lower outer aspect of the left papilla. It does not extend, as in the former case, to the edge of the excavation toward the nerve center, nor does it reach in part of its course the outer rim of the disc. I have endeavored to illustrate this condition of things by the preceding rough diagrams.

I have seen a number of similar whitish areas in papillæ of eyes otherwise normal which were not accompanied by deterioration of vision or contraction of the field of vision, and I consequently hesitate to regard this picture as evidence of atrophic changes, however limited, of the optic nerve itself, and yet they are certainly not the pale spots on the surface of the disc which one sometimes sees due to variations in the light reflex from an uneven papillary surface.

Whether the limited decolorization of the discs is evidence of a retro-bulbar neuritic process it would be difficult to say. The history of an attack, occurring six months before and accompanied by absolute central scotomata and great loss of visual acuity, certainly points in that direction, but, in the absence of more positive proof, one can not very well decide. If such has been the case, it is not easy to say why, with some remaining impairment of vision, there are no central scotomata, not even for colors.

Notwithstanding all treatment, the ocular symptoms since the date of writing the foregoing, the epiphora especially, are as pronounced as ever.



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